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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/708,365 | 02/26/2004 | Jyi-Maw Hung | 12036-US-PA | 2364 |

31561 7590 04/23/2007
JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE
7 FLOOR-1, NO. 100
ROOSEVELT ROAD, SECTION 2
TAIPEI, 100
TAIWAN

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| EXAMINER |
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PIZIALI, JEFFREY J

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| ART UNIT | PAPER NUMBER |
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2629

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 04/23/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/708,365 | HUNG ET AL. | |
| | Examiner | Art Unit | |
| | Jeff Piziali | 2629 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-19 is/are pending in the application.
- 4a) Of the above claim(s) 1,2 and 4-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-19 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicants' election of Species II (i.e., Claims 9-19) in the reply filed on 6 February 2007 is acknowledged. Because applicants did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. Claims 1, 2, and 4-8 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 6 February 2007.

3. Applicants are reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Specification

4. The disclosure is objected to because of the following informalities: The phrase "products is available" should be altered to "products are available" (see Page 1, Paragraph 5 of the Instant Specification). Appropriate correction is required.

5. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicants' cooperation is requested in correcting any errors of which applicants may become aware in the specification.

Claim Objections

6. Claim 12 is objected to because of the following informalities: The phrase "Gamma circuit applied" should be altered to "Gamma circuit is applied" (see Claim 12, Line 2).
Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 9-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Medina et al (US 6,359,389 B1).

Regarding claim 9, Medina discloses a programmable Gamma circuit [Figs. 3 & 6; 240b], comprising: a plurality of Gamma resistors [Fig. 5; 514 & 524], each of the Gamma resistors having a first terminal and a second terminal (see Column 8, Line 65 - Column 9, Line 22), the first terminal of any one of the Gamma resistors receiving one of a plurality of Gamma setup

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signals [Fig. 6; 410], each of the Gamma setup signals being in digital form, and the second terminal of each of the Gamma resistors being coupled together where current outputted from each of the Gamma resistors is summed up to a Gamma current (see Column 9, Line 50 - Column 10, Line 21); and an amplifying unit [Fig. 6; 520 + R], receiving the Gamma current and outputting a Gamma voltage signal [Fig. 6; V_{OUT}] correspondingly (see Column 9, Lines 23-48).

Regarding claim 10, Medina discloses the amplifying unit comprises: a feedback resistor [Fig. 6; R], having a third terminal and a fourth terminal; and an operational amplifier [Fig. 6; 520], having a first input terminal, a second input terminal and an output terminal, wherein the first input terminal is coupled to a voltage level [Fig. 6; "ground"], the second input terminal is coupled to the third terminal of the feedback resistor and receives the Gamma current, and the output terminal and the fourth terminal of the feedback resistor are coupled and output the Gamma voltage signal (see Column 9, Lines 23-48).

Regarding claim 11, Medina discloses the voltage level is ground voltage level (see Column 9, Lines 34-40).

Regarding claim 12, Medina discloses the programmable Gamma circuit applied to a driving circuit of a display apparatus [Fig. 3; 280] (see Column 7, Lines 12-15).

Regarding claim 13, Medina discloses the display apparatus is a liquid crystal display (see Column 5, Lines 11-32).

Regarding claim 14, this claim is rejected by the reasoning applied in rejecting claims 9 and 12; furthermore, Medina discloses a display apparatus (see Column 5, Lines 11-32), comprising: a display panel [Fig. 3; 280] (see Column 7, Lines 12-15); a control/modify circuit [Fig. 3; 250], for outputting a plurality of Gamma setup signals [Fig. 6; 410], wherein each of the Gamma setup signals is in digital form and comprises a plurality of bit signals; and a driving circuit [Fig. 3; 240b + 260 + 270] (see Column 8, Line 65 - Column 9, Line 22), coupling to the control/modify circuit and the display panel, wherein the driving circuit comprises a programmable Gamma circuit [Figs. 3 & 6; 240b] (see Column 9, Line 50 - Column 10, Line 21), the programmable Gamma circuit receiving the Gamma setup signals, and outputting a plurality of Gamma voltage signals [Fig. 6; V_{OUT}] correspondingly according to the Gamma setup signals (see Column 9, Lines 23-48).

Regarding claim 15, this claim is rejected by the reasoning applied in rejecting claim 9.

Regarding claim 16, this claim is rejected by the reasoning applied in rejecting claim 9.

Regarding claim 17, this claim is rejected by the reasoning applied in rejecting claim 10.

Regarding claim 18, this claim is rejected by the reasoning applied in rejecting claim 11.

Regarding claim 19, this claim is rejected by the reasoning applied in rejecting claim 13.

Conclusion

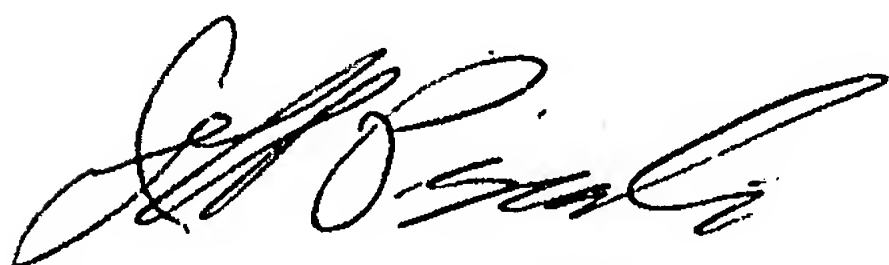
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chen et al (US 2002/0158862 A1), Ha et al (US 7,187,375 B2), Yamaguchi et al (US 6,987,499 B2), Bu (US 6,836,232 B2), Yer et al (US 6,731,259 B2), Woo et al (US 6,680,733 B2), Liaw et al (US 6,593,934 B1), Lee (US 6,535,152 B2), Nakao (US 6,437,716 B2), Liaw et al (US 6,424,281 B1), and Goode et al (US 6,297,790 B1) are cited to further evidence the state of the art pertaining to programmable gamma circuitry.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (571) 272-7678. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jeff Piziali
16 April 2007